

Application Serial No. 09/483,248
Amendment Dated October 13, 2003
Reply to Office Action dated August 6, 2003

Amendments to the Specification

Please replace the title of the invention with the following:

METHOD FOR AUTOMATED STAINING OF SPECIMEN SLIDES

Please replace the Abstract of the Invention with the following:

Abstract of the Disclosure

METHOD FOR AUTOMATED STAINING OF SPECIMEN SLIDES

A method and apparatus for specimen slide (710) preparation is disclosed. The method and apparatus of the present invention uses slide trays (700) that have receptacles for at least one specimen slide (710) and an associated reagent pack (720). The specimen slide (710) ~~and/or~~ and reagent pack (720) includes respective identifiers (420, 411) that specify a particular slide preparation protocol that should be followed. The method ~~and apparatus reads the identifier (420) to determine the particular slide preparation protocol and then prepares the specimen slide according to the particular slide preparation protocol.~~ The apparatus may obtain some or all of the reagents needed for the particular slide preparation protocol from the reagent pack (400). reads the identifiers (420, 411) on the reagent pack and the slide to verify that the correct slide preparation protocol is being used.

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Please replace the paragraphs beginning at page 6, line 8, with the following amended paragraphs:

Figure 5a illustrates a four well reagent ~~pack or the~~ pack for the autostainer apparatus of the present invention.

~~Figure 5a~~ Figure 5b illustrates a six well reagent ~~pack or the~~ pack for the autostainer apparatus of the present invention.

Figure 5c illustrates an eight well reagent ~~pack or the~~ pack for the autostainer apparatus of the present invention.

Please replace the paragraphs beginning at page 6, line 22, with the following amended paragraphs:

Figure 7a illustrates a front view of a combined slide and reagent rack pack for preparing four slides.

Figure 7b illustrates a back view of a combined slide and reagent rack pack for preparing four slides.

Please replace the paragraph beginning at page 10, line 7, with the following amended paragraphs:

With the tiltable sink system of the present invention, the present invention can send different types of waste down different waste lines such that a first waste line may be used to remove nonhazardous waste and the other waste line may be used to remove hazardous waste. The non hazardous waste line may simply be connected to a sewage drain pipe. The hazardous waste line should be connected to hazardous waste container that is disposed of appropriately.

Please replace the paragraph beginning at page 10, line 19, with the following amended paragraph:

Several other components are also located inside the autostainer. Figure 3 illustrates a conceptual diagram of the fluid flow components of the autostainer. Referring to Figure 3, three different output devices located on the Z-Head assembly of the autostainer deliver air or fluid to the slides.

Please replace the paragraph beginning at page 11, line 18, with the following amended paragraph:

To simplify the operation, the present invention introduces an autostainer system with a greatly simplified operation. To use the autostainer system of the present invention, a user simply adds a set of slides where each slide is accompanied by a specific reagent pack that contains the reagents needed for a specific slide preparation protocol. The reagent pack further includes information that identifies the slide preparation protocol to be performed.

Please replace the paragraphs beginning at page 12, line 9, with the following amended paragraphs:

The cover **410** may further include a second barcode identification sticker **420**. As shown in Figure 7a, the ~~[[The]]~~ barcode identification sticker **420** can be placed directly onto a slide **710** to be performed such that the autostainer will automatically know the slide preparation protocol to be performed.

Figure 4b illustrates an alternate embodiment of a reagent pack **490**. In the alternate embodiment of **Figure 4b**, the identifiers **431** and **441** have been placed on a cover 432 parallel to the line of wells **401** to **406**. In yet another embodiment (not shown), a tiltable sink is created with four drain holes

with one hole at each corner. In such an embodiment, four different waste systems may be used.

The autostainer system of the present invention is capable of handling many different slide preparation protocols that require different numbers of reagents. Figures 5a, 5b, and 5c illustrate different sized reagent packs for different protocols. Figure 5a illustrates a ~~simply~~ simple four reagent pack for simple slide preparations. Figure 5b illustrates the six-reagent pack of Figure 4a. Figure 5c illustrates an eight-reagent pack for complex slide preparation protocols.

The autostainer will be used to perform large numbers of slide preparations. Each slide preparation requires a reagent pack. To simplify purchasing, reagent packs may be purchased in bulk packages. Figure 6a illustrates one possible bulk package where several reagent packs are sold in a perforated two-dimensional matrix of individual reagent packs. Figure 6b illustrates an alternate bulk package where several reagent packs are sold as a strip of connected ~~[[of]]~~ individual reagent packs.

Please replace the paragraph beginning at page 16, line 4, with the following amended paragraph:

After calculating a staining schedule, the autostaining apparatus ~~beings~~ begins to process slides according to a created staining schedule. The system continues the staining operations until one of the conditions of step 805 are detected (or an error occurs). Specifically, step 805 determines if the staining run is completely done, the staining run is partially done, or if the user has pressed the pause button.

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Please replace the paragraph beginning at page 17, line 23, with the following amended paragraph:

After the autostainer control program has added the filled [[the]] scheduling table, the autostainer control program proceeds to step 830 to begin automatic programming. At step 830, the autostainer control program first places the slides into a specific order. In one embodiment, the autostainer control program orders the slides using this order: